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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,946	01/15/2002	Carl E. Cupit	CUPIT001	2439

7590 02/24/2005

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EXAMINER

WACHTEL, ALEXIS A

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,946

Applicant(s)

CUPIT, CARL E.

Examiner

Alexis Wachtel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3-7-02.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Detailed Action

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 4-9 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Clearly recited computational steps critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). In particular, the Spec on pp. 5, lines 10-23, pp.6, lines 1-7 merely delineate in an unclear manner the computational steps (algorithms) required to generate data used in the claimed method. Applicant has failed to provide illustrative examples of the method in practice.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,176,052 to Bruce et al.

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With respect to claim 1, Bruce et al teach a level system for detecting a foam level in a delayed coking drum comprising:

- (a) a plurality of radiation detectors mounted length wise along the height of the coke drum (Col 9, lines 9-19);
- (b) a radiation source mounted on the coke drum opposite said radiation detectors (Col 8, lines 31-40);
- (c) each of said radiation detectors being calibrated to read one hundred per cent level when no radiation is detected. Examiner notes that radiation detectors are capable of being calibrated to read at any percentage level

With respect to claim 2, wherein each of said radiation detectors is spaced apart a nominal distance along the height of said drum (Col 9, lines 9-19).

With respect to claim 3, wherein each of said radiation detectors is placed end to end along the height of said drum (Col 9, lines 9-19). Examiner notes that Bruce et al broadly enables for multiple placement of radiation detectors along at different elevations in a coke drum which would not preclude placement of detectors end to end along height of said drum.

With respect to claims 4-9, Bruce et al broadly enables for multiple placement of radiation detectors along at different elevations in a coke drum which would not preclude placement of detectors end to end along height of said drum whereby a radiation source is placed on said drum opposite said radiation detectors (Col 8, lines 31-40). The radiation detectors are configured to measure radiation emitted from radiation sources. When foam is present over a radiation

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marker, the detector corresponding to that radiation marker/source does not detect radiation thus signaling that a specific level of foam has been reached (Col 3, lines 10-18) which reads on limitations of claim 4 (e-f). With the enablement of the use of multiple spaced radiation sources and radiation detectors, Bruce et al enables for measuring foam levels along the height of the entire coke drum. Inherently, a second radiation detector (located at a higher vertical position than a first radiation) whose radiation readings start dropping requires that the first radiation detector not be detecting any radiation (which reads on a calibration to zero radiation detection) since foam would have at least reached a point blocking radiation at the first radiation detector level. Examiner notes that the use of radiation detectors constitutes a means of accounting for the changing densities of the foam in the drum over the height of the coke drum. Additionally, Examiner notes that Bruce et al thusly reads on the limitations of claims 4-9.

Prior Art of Record

5. The prior art of record and not relied upon is considered pertinent to Applicant's disclosure. In addition, the following references are cited for disclosing various aspects of Applicant's invention:

US 4,755,677; US 3,501,632; US 4,727,247; US 4,884,457; US 5,132,917;
US 5,127,772; US 5,028,311; US 5,667,669; US 4,344,819

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Wachtel whose telephone number is 571-272-1455. The examiner can normally be reached on 10:30am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Glenn Caldarola, can be reached at (571)-272-1444. The fax

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phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Technology Center 1700